

REMARKS

After entry of this amendment, claims 1 and 3-15 are pending. Claim 2 has been cancelled without prejudice or disclaimer. Claims 1 and 3 have been amended without prejudice or disclaimer and find support *inter alia* in the original claims.

New claims 10-15 are drawn to embodiments of the invention similar to original claim 1, but which have taken into account the Examiner's comments concerning product-by-process claims. The added claims contain the limitations of the former claims, but are drafted to highlight the novel and unobvious aspects of the invention. Consideration of these new claims is therefore respectfully requested.

Support for industrial materials and industrial processes – and exemplary disclosure of each – are found in the specification at page 7, lines 15-30. *In situ* formation of the CuHDO in an industrial material is described throughout the specification, and in the examples.

No new matter has been added.

Claim Rejection – 35 USC § 102(b)

Claims 1-3, 5 and 7-9 are rejected under 35 USC §102(b) as being anticipated by Goettsche *et al.* (U.S. Pat. No. 4,761,179, hereinafter “Goettsche”). Applicants respectfully disagree and traverse the rejection in view of the present claim amendments.

The claims to composition have been rewritten using “consisting essentially of” transition phrase to restrict the claims to the recited components and to the exclusion of components which would materially change the composition. See MPEP 2111.03.

Goettsche teaches wood preservatives (concentrates) comprising CuHDO and water with a pH not less than 7.5. In addition to containing CuHDO, the concentrates contain several other components, including polyamine. See Col. 1, ll. 45-51. The polyamine is disclosed to be critical to “complex formation” in the wood being treated. Col. 2, ll. 26-28.

The composition claims as amended exclude from their scope the components including polyamine disclosed by Goettsche. Accordingly, the composition claims as amended are not anticipated by Goettsche.

The added method claims are not anticipated by Goettsche since the reference does not disclose *in situ* formation of CuHDO in an industrial material and further because it suggests no utility other than treating wood.

The added product-by-process claims (*i.e.* claims 12, 15) are also patentable because they include the requirement for *in situ* formation of the CuHDO. Goettsche teaches only pre-prepared CuHDO, mixed with other components, in the preparation of the wood preservative formulations. Goettsche does not teach or suggest that the CuHDO used in the disclosed wood preservatives is or can be generated in-situ.¹ In this case, preparing CuHDO in-situ should be given patentable weight because distinct properties are produced in the industrial material as a result of *in situ* formation of the CuHDO, as evidenced by the Examples given in the specification. Specifically, Applicants direct the Examiner to the data provided in the specification at pages 11 and 14-15.

There, various working examples demonstrate that an industrial material (e.g. a polymer dispersion) prepared by generating CuHDO *in situ* exhibits improved properties as compared to the composition prepared by adding pre-prepared CuHDO to the industrial material. See e.g., Table 1 at page 11. As shown in Table 1, 1000 ppm of in-situ prepared CuHDO exhibits anti-fungi activity at all three pH ranges tested (*i.e.* pH 5, pH 7, and pH 9), whereas pre-prepared CuHDO loses the anti-fungi activity at pH 5. Another significant difference lies on the color of in-situ prepared CuHDO as compared to pre-prepared CuHDO. Because CuHDO is blue colored, discoloration of the industrial material to be protected may occur when CuHDO is used. However, as shown in Table 1, in-situ prepared CuHDO has only a slight blue color, whereas pre-prepared CuHDO has a clearly visible blue color. Such a property further makes the *in-situ* prepared CuHDO more suitable for "color-sensitive" applications such as paints or lacquers. Similar result can be seen in Tables 5-7 at pages 14-15, where none of the composition prepared by using pre-prepared CuHDO exhibits acceptable blue color. These results demonstrate that the claimed product is distinct from other types of product in possessing unexpected properties including reduction in the observed intensity of the blue discoloration.

¹ "In-situ" means that CuHDO is not prepared before the application, rather it is prepared by adding separately a solution of a Cu salt and a solution of a water soluble HDO-salt to the medium to be protected so that CuHDO forms within the medium to be protected. See e.g., page 2, line 21, of the specification.

Claim Rejection – 35 USC § 103(a)

Claims 1, 3 and 6 are rejected under 35 USC § 103(a) as being obvious over Goettsche. Additionally, claims 1 and 3-4 are rejected as being obvious over Goettsche in view of Lorentzen *et al.* (U.S. Pat. No. 5,332,765, hereinafter "Lorentzen"). Applicants disagree and traverse the rejection.

Since Lorentzen was cited only to show other microbicidal components, the present claims should be found patentable over Goettsche in view of Lorentzen for the reasons stated above.

Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

For at least the above reasons, Applicants respectfully request withdrawal of the rejections and allowance of the claims. If any outstanding issues remain, the Examiner is invited to telephone the undersigned at the number given below.

This response is filed within the three-month period for response from the mailing of the Office Communication, to and including November 11, 2008. Applicants believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00249-US from which the undersigned is authorized to draw.

Respectfully submitted,

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